



# Manufacturers' Shipments, Inventories, and Orders

January 1973



U. S. DEPARTMENT OF COMMERCE • Social and Economic Statistics Administration • BUREAU OF THE CENSUS

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## SUMMARY

New orders for manufactured products in January increased \$2.35 billion or 3.5 percent to \$70.02 billion from \$67.67 billion in December, after seasonal adjustment. Shipments in January increased \$2.26 billion or 3.4 percent to \$68.64 billion from \$66.39 billion in December. Unfilled orders increased \$1.39 billion or 1.6 percent to \$86.62 billion at the end of January. Manufacturers' inventories increased \$213 million or 0.2 percent to \$107.26 billion at the end of January. The inventories to shipments ratio decreased from 1.61 to 1.56.

For the 3 months ending in January, the average month to month change in new orders increased 2.3 percent, compared with a 1.7 percent increase from the 3 months ending in October and a 0.3 percent increase for the 3 months ending in July.

## NEW ORDERS

New orders for durable goods increased \$2.24 billion or 6.0 percent to \$39.80 billion in January. Increases in motor vehicles and parts (\$1.11 billion)<sup>1</sup>, aerospace industries (\$335 million), nonelectrical machinery (\$205 million) and shipbuilding and railroad equipment (\$150 million).

## SHIPMENTS

Shipments of durable goods increased \$2.19 billion or 6.0 percent to \$38.57 billion in January. The January increase was led by motor vehicles and parts (\$975 million), electrical machinery (\$365 million) and nonelectrical machinery (\$305 million). Shipments of nondurable goods increased

\$65 million or 0.2 percent to \$30.07 billion in January. In January, increases in shipments in paper and allied products (\$190 million), printing and publishing (\$140 million) and rubber and plastic products (\$70 million) were partially offset by decreases in food products (\$240 million) and chemicals (\$155 million).

## UNFILLED ORDERS

Unfilled orders of durable goods increased \$1.24 billion or 1.5 percent to \$82.47 billion at the end of January. The increases in unfilled orders were led by nonelectrical machinery (\$445 million) and primary metals industries (\$305 million).

## INVENTORIES

Inventories of durable goods increased \$225 million as inventories of nondurable goods decreased \$10 million in January. At the all manufacturing level, materials and supplies increased \$390 million, work in process inventories decreased \$90 million and finished goods inventories decreased \$80 million.

## SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for February is scheduled for release on March 21, 1973 and the full report is scheduled for release on March 30, 1973.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Industry Division, Washington, D.C. 20233.

<sup>1</sup>It should be noted that new orders for the motor vehicles industry are not reported as such but are estimated as equal to shipments. Hence a sizeable increase in shipments is necessarily accompanied by a similar increase in new orders.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Shipments						Total inventories					
	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment <sup>1</sup>		
	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>R</sup>	Nov. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>R</sup>	Jan. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>R</sup>	Nov. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>R</sup>	Jan. 1972
All manufacturing industries:												
Total.....	68,642	66,387	66,553	63,805	63,477	55,032	107,260	107,047	106,371	107,544	106,645	102,098
Total, excluding transportation.....	58,994	57,996	57,756	54,659	55,166	48,049	90,573	90,323	89,790	90,762	90,010	86,718
Durable goods industries, total.	38,569	36,378	36,750	35,681	34,801	29,535	70,369	70,144	69,641	70,269	69,696	66,134
Stone, clay, and glass products.	2,204	2,119	2,149	1,911	1,892	1,628	2,352	2,381	2,378	2,357	2,323	2,264
Primary metals, total.....	5,774	5,997	5,747	5,609	5,465	4,565	9,571	9,619	9,617	9,717	9,806	9,473
Blast furnaces, steel mills.	2,897	3,036	2,933	2,853	2,717	2,157	5,151	5,244	5,321	5,275	5,444	5,184
Nonferrous metals.....	2,112	2,169	2,058	2,027	2,019	1,796	3,430	3,423	3,390	3,464	3,417	3,473
All other primary metals....	765	792	756	729	729	612	990	952	906	978	945	816
Fabricated metal products total.....	3,666	3,473	3,490	3,327	3,353	2,950	7,566	7,551	7,541	7,458	7,398	7,240
Metal cans, barrels, and drums.....	401	414	433	355	360	363	648	659	680	637	605	747
Machinery, except electrical, total.....	6,338	6,033	5,933	5,923	5,813	4,929	14,218	14,129	13,944	14,217	14,101	13,448
Engines and turbines.....	504	460	428	419	515	387	1,315	1,334	1,316	1,304	1,339	1,207
Farm machinery and equipment.	620	623	679	585	500	471	1,222	1,202	1,196	1,245	1,210	1,115
Construction, mining, and material handling equipment.	1,059	1,001	971	1,043	870	835	2,778	2,745	2,621	2,786	2,767	2,619
Metalworking machinery.....	461	433	411	435	454	352	1,216	1,227	1,227	1,208	1,214	1,154
General industrial machinery	507	497	473	459	481	363	1,227	1,201	1,196	1,217	1,191	1,148
Electrical machinery, total...	5,368	5,003	5,075	4,785	5,053	4,274	10,706	10,423	10,323	10,510	10,239	9,631
Electrical transmission and distribution equipment and industrial apparatus.....	1,046	942	958	898	941	769	2,355	2,309	2,275	2,345	2,301	2,080
Household appliances.....	737	720	713	607	655	508	1,120	1,061	1,066	1,117	1,045	1,111
Radio and TV.....	456	492	512	419	536	356	977	941	923	891	880	696
Communication equipment....	1,350	1,232	1,231	1,225	1,283	1,130	3,057	2,971	2,983	3,015	2,935	2,909
Transportation equipment, total	9,648	8,391	8,797	9,146	8,311	6,983	16,687	16,724	16,581	16,782	16,635	15,380
Motor vehicles and parts....	6,484	5,508	5,831	6,418	5,167	4,733	4,071	4,232	4,297	4,205	4,318	4,079
Aircraft, missiles, and parts.....	2,305	2,054	2,099	1,987	2,301	1,461	9,518	9,474	9,366	9,489	9,363	8,924
Shipbuilding and railroad equipment.....	560	529	538	490	565	575	2,436	2,296	2,222	2,404	2,296	1,757
Instruments and related products, total.....	1,143	1,096	1,126	1,028	1,100	903	2,560	2,615	2,625	2,502	2,538	2,459
Scientific and engineering..	577	545	550	543	533	470	1,506	1,560	1,535	1,489	1,530	1,435
All other instruments and related products.....	566	551	576	485	567	433	1,054	1,055	1,090	1,013	1,008	1,024
All other durable goods industries.....	4,428	4,266	4,433	3,952	3,814	3,303	6,709	6,702	6,632	6,726	6,656	6,239
Nondurable goods industries, total.....	30,073	30,009	29,803	28,124	28,676	25,497	36,891	36,903	36,730	37,275	36,949	35,964
Food and kindred products, total.....	9,816	10,055	9,869	9,212	9,986	8,449	9,471	9,294	9,294	9,715	9,590	9,290
Meat products.....	2,207	2,358	2,296	2,156	2,339	2,177	849	834	859	873	842	784
Fats and oils.....	610	642	589	595	614	477	838	728	752	895	778	722
Tobacco products.....	538	525	549	499	519	487	2,421	2,456	2,390	2,566	2,564	2,391
Textile mill products.....	2,506	2,520	2,426	2,286	2,405	1,994	3,882	3,842	3,867	3,847	3,735	3,605
Paper and allied products, total.....	2,609	2,419	2,453	2,505	2,296	2,216	2,817	2,799	2,793	2,812	2,789	2,718
Pulp, paper, etc.....	1,098	963	1,015	1,058	936	902	1,021	1,004	1,010	1,023	1,001	1,046
Paperboard containers.....	778	719	707	735	673	666	828	841	836	614	824	813
All other paper containers..	733	737	731	712	687	648	968	954	947	975	964	859
Chemicals and allied products, total.....	5,078	5,235	4,983	4,774	4,693	4,381	6,857	6,846	6,831	6,902	6,868	6,718
Industrial chemicals, except pigments.....	1,632	1,613	1,540	1,543	1,473	1,430	1,862	1,879	1,907	1,888	1,911	1,919
Drugs, soap, and toiletries.	1,424	1,535	1,509	1,402	1,409	1,369	2,247	2,245	2,183	2,229	2,214	2,059
Petroleum and coal products...	2,529	2,517	2,476	2,509	2,530	2,186	2,134	2,200	2,264	2,148	2,232	2,250
Rubber and plastics products, n.e.c.....	1,572	1,501	1,546	1,465	1,387	1,346	2,310	2,332	2,277	2,322	2,333	2,187
All other nondurable goods industries.....	5,425	5,237	5,501	4,874	4,860	4,438	6,999	7,134	7,014	6,963	6,838	6,805

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP--Continued

(Millions of dollars)

Industry group	New orders						Unfilled orders					
	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment <sup>1</sup>		
	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>r</sup>	Nov. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>r</sup>	Jan. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>r</sup>	Nov. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>r</sup>	Jan. 1972
All manufacturing industries:												
Total.....	70,020	67,668	67,587	66,314	65,071	56,620	86,615	85,226	83,947	87,125	84,611	74,066
Total, excluding transportation.....	59,944	59,188	58,738	56,639	56,678	48,558	61,176	60,217	59,025	61,531	59,546	51,671
Durable goods industries, total.	39,798	37,562	37,619	38,059	36,350	31,043	82,469	81,231	80,047	83,049	80,665	70,923
Primary metals, total.....	6,078	5,968	5,914	6,558	5,801	4,933	8,780	8,474	8,503	9,226	8,277	6,275
Blast furnaces, steel mills.	2,994	2,976	3,008	3,457	2,950	2,453	5,418	5,321	5,381	5,781	5,177	3,635
Nonferrous metals.....	2,268	2,179	2,132	2,298	2,093	1,874	2,219	2,063	2,053	2,288	2,018	1,785
Fabricated metal products.....	3,848	3,811	3,417	3,547	3,704	3,018	10,545	10,364	10,025	10,573	10,352	9,491
Machinery, except electrical, total.....	6,789	6,583	6,423	6,503	6,371	5,147	15,975	15,522	14,969	15,990	15,408	12,757
Engines and turbines.....	613	714	591	561	774	398	4,483	4,374	4,119	4,498	4,357	3,468
Construction, mining, and material handling equipment.	1,130	1,118	1,055	1,138	951	845	2,866	2,794	2,677	2,811	2,716	2,394
Metalworking machinery.....	546	502	500	521	520	333	1,446	1,361	1,292	1,449	1,363	940
General industrial machinery.	551	543	526	514	549	406	1,580	1,536	1,489	1,578	1,523	1,293
Electrical machinery, total...	5,281	5,189	5,322	4,812	5,295	3,959	15,256	15,342	15,157	15,245	15,218	14,010
Electrical transmission and distribution equipment and industrial apparatus.....	1,094	1,013	1,044	946	1,050	674	4,430	4,381	4,311	4,406	4,358	3,737
Household appliances.....	729	719	704	606	656	502	144	152	152	141	142	121
Radio and TV.....	424	480	518	374	557	359	662	695	707	617	662	457
Communication equipment.....	1,206	1,218	1,314	1,222	1,241	1,029	5,719	5,862	5,877	5,836	5,839	6,127
Transportation equipment, total.....	10,076	8,480	8,849	9,675	8,393	8,062	25,439	25,009	24,922	25,594	25,065	22,395
Aircraft, missiles, and parts.....	2,388	2,054	2,178	2,249	2,285	1,724	16,728	16,643	16,645	16,783	16,522	14,470
Shipbuilding and railroad equipment.....	727	576	472	552	586	1,304	5,681	5,514	5,467	5,654	5,592	5,417
All other durable goods industries.....	7,726	7,531	7,694	6,964	6,786	5,924	6,474	6,520	6,471	6,421	6,345	5,995
Nondurable goods industries, total.....	30,222	30,106	29,968	28,255	28,721	25,577	4,146	3,995	3,900	4,076	3,946	3,143
Industries with unfilled orders.....	8,323	7,951	8,049	7,757	7,686	6,796	4,146	3,995	3,900	4,076	3,946	3,143
Industries without unfilled orders.....	21,750	22,155	21,919	20,372	21,035	18,781	-	-	-	-	-	-

- Represents zero.   <sup>P</sup>Preliminary.   <sup>r</sup>Revised.<sup>1</sup>Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES  
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>F</sup>	Nov. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>F</sup>	Jan. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>F</sup>	Nov. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>F</sup>	Jan. 1972
	Shipments						Total inventories					
All manufacturing industries, total..	68,642	66,387	66,553	63,805	63,477	55,032	107,260	107,047	106,371	107,544	106,645	102,098
Durable goods industries, total.....	38,569	36,378	36,750	35,681	34,801	29,535	70,367	70,144	69,641	70,269	69,696	66,134
Nondurable goods industries, total.....	30,073	30,009	29,803	28,124	28,676	25,497	36,891	36,903	36,730	37,275	36,949	35,964
Industry groups arranged by market categories:												
Home goods and apparel.....	6,897	6,811	7,020	6,044	6,068	5,245	11,748	11,793	11,633	11,593	11,375	10,703
Consumer staples.....	12,497	12,732	12,605	11,766	12,576	10,956	14,363	14,357	14,259	14,684	14,656	14,225
Equipment and defense products, except automotive.....	10,250	9,455	9,464	9,305	9,544	7,741	28,552	28,206	27,815	28,456	28,047	26,315
Automotive equipment.....	7,226	6,246	6,610	7,073	5,814	5,331	5,531	5,742	5,759	5,693	5,757	5,429
Construction materials, supplies, and intermediate products.....	5,984	5,719	5,772	5,121	5,176	4,429	8,578	8,661	8,577	8,542	8,541	8,199
Other materials and supplies and intermediate products.....	25,788	25,424	25,082	24,496	24,299	21,330	38,488	38,288	38,328	38,576	38,269	37,227
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	3,232	3,216	3,310	2,858	3,008	2,351	5,509	5,471	5,411	5,406	5,316	4,944
Capital goods industries.....	11,904	11,008	11,008	10,767	11,289	9,181	32,051	31,598	31,165	31,882	31,391	29,529
Nondefense.....	9,833	9,256	9,207	8,988	9,318	7,674	25,877	25,549	25,242	25,821	25,482	24,247
Defense.....	2,071	1,752	1,801	1,779	1,971	1,507	6,174	6,049	5,923	6,061	5,909	5,282
	New orders						Unfilled orders					
All manufacturing industries, total..	70,020	67,668	67,587	66,314	65,071	56,620	86,615	85,226	83,947	87,125	84,611	74,066
Durable goods industries, total.....	39,798	37,562	37,619	38,059	36,350	31,043	82,469	81,231	80,047	83,049	80,665	70,923
Nondurable goods industries, total.....	30,222	30,106	29,968	28,255	28,721	25,577	4,146	3,995	3,900	4,076	3,946	3,143
Industry groups arranged by market categories:												
Home goods and apparel.....	6,881	6,732	6,935	6,038	5,974	5,285	2,525	2,529	2,601	2,440	2,439	2,189
Consumer staples.....	12,508	12,738	12,609	11,774	12,581	10,960						
Equipment and defense products, except automotive.....	10,693	10,381	10,043	10,035	10,454	8,581	44,378	43,752	42,785	44,607	43,669	39,237
Automotive equipment.....	7,404	6,288	6,649	7,278	5,911	5,418						
Construction materials, supplies, and intermediate products.....	6,121	6,083	5,724	5,352	5,454	4,532	10,193	10,056	9,692	10,121	9,890	9,190
Other materials and supplies and intermediate products.....	26,413	25,446	25,627	25,837	24,697	21,844	29,519	28,889	28,869	29,957	28,613	23,450
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	3,197	3,140	3,210	2,833	2,933	2,394	2,030	2,064	2,139	1,962	1,986	1,781
Capital goods industries.....	12,489	11,767	11,676	11,698	11,997	10,116	50,540	49,948	49,191	50,683	49,753	44,241
Nondefense.....	10,524	10,072	9,762	9,905	10,086	7,635	30,512	29,814	29,000	30,452	29,536	25,101
Defense.....	1,965	1,695	1,914	1,793	1,911	2,481	20,028	20,134	20,191	20,231	20,217	19,140

<sup>1</sup>During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in the defense series. <sup>P</sup>Preliminary. <sup>F</sup>Revised. <sup>1</sup>Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. <sup>2</sup>The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.  
Capital goods industries - The capital goods industries series is comparable to the previous Producers' Capital Goods and the Defense Products (old series) categories.  
Nondefense products - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances and electronic components), and the nondefense portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft and aircraft parts, and ordnance.  
Defense products - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, aircraft and aircraft parts, and shipbuilding. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1967-72	
	Dec. 1972- Jan. 1973	Nov. 1972- Dec. 1972	Oct. 1972- Nov. 1972	3 months			12 months	Average rise	Average decline
				Oct. 1972- Jan. 1973	July 1972- Oct. 1972	Apr. 1972- July 1972	Jan. 1972 Jan. 1973		
Shipments:									
All manufacturing industries.....	+3.4	-0.2	+2.8	+2.0	+1.7	+0.2	+1.3	+1.3	-1.2
Durable goods industries, total.....	+6.0	-1.0	+1.8	+2.3	+2.2	+0.3	+1.6	+1.9	-1.9
Nondurable goods industries, total.....	+0.2	+0.7	+4.1	+1.7	+1.0	+0.2	+0.9	+1.0	-0.5
Total inventories:									
All manufacturing industries.....	+0.2	+0.6	+0.3	+0.4	+0.7	+0.5	+0.4	+0.5	-0.2
New orders:									
All manufacturing industries.....	+3.5	+0.1	+3.3	+2.3	+1.7	+0.3	+1.3	+1.9	-1.3
Durable goods industries, total.....	+6.0	-0.2	+2.3	+2.7	+2.2	+0.5	+1.7	+2.8	-2.4
Nondurable goods industries, total.....	+0.4	+0.5	+4.4	+1.8	+1.0	+0.2	+0.9	+1.0	-0.6
Unfilled orders:									
Durable goods industries, total.....	+1.5	+1.5	+1.1	+1.4	+1.5	+1.7	+1.3	+0.9	-1.2

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Jan. 1973 <sup>p</sup>	Dec. 1972 <sup>r</sup>	Nov. 1972	Jan. 1973 <sup>p</sup>	Dec. 1972 <sup>r</sup>	Nov. 1972	Jan. 1973 <sup>p</sup>	Dec. 1972 <sup>r</sup>	Nov. 1972	Jan. 1973 <sup>p</sup>	Dec. 1972 <sup>r</sup>	Nov. 1972
	Total						Materials and supplies					
All manufacturing industries, total..	107,260	107,047	106,371	107,544	106,645	102,098	34,068	33,679	33,548	34,246	34,141	32,847
Durable goods industries, total.....	70,369	70,144	69,641	70,269	69,696	66,134	20,114	19,870	19,812	20,042	20,055	19,083
Stone, clay, and glass products.....	2,352	2,381	2,378	2,357	2,323	2,264	788	772	790	785	797	770
Primary metals.....	9,571	9,619	9,617	9,717	9,806	9,473	3,584	3,465	3,460	3,625	3,645	3,613
Machinery (electrical and nonelectrical).	24,924	24,552	24,267	24,727	24,340	23,079	6,819	6,625	6,515	6,756	6,633	6,205
Transportation equipment.....	16,687	16,724	16,581	16,782	16,635	15,380	2,677	2,734	2,807	2,712	2,770	2,791
All other durable goods industries.....	16,835	16,868	16,798	16,686	16,592	15,938	6,246	6,274	6,240	6,164	6,210	5,704
Nondurable goods industries, total.....	36,891	36,903	36,730	37,275	36,949	35,964	13,954	13,809	13,736	14,204	14,086	13,764
Chemicals and allied products.....	6,857	6,846	6,831	6,902	6,868	6,718	2,376	2,315	2,318	2,392	2,339	2,306
Petroleum and coal products.....	2,134	2,200	2,264	2,148	2,232	2,250	527	533	532	534	534	531
Rubber and plastics products, n.e.c.....	2,310	2,332	2,277	2,322	2,333	2,187	637	661	645	631	661	618
All other nondurable goods industries....	25,590	25,525	25,358	25,903	25,516	24,809	10,414	10,300	10,241	10,647	10,552	10,309
	Work in process						Finished goods					
All manufacturing industries, total..	38,251	38,349	37,921	38,255	37,884	35,228	34,941	35,019	34,902	35,043	34,620	34,023
Durable goods industries, total.....	32,643	32,693	32,321	32,628	32,356	29,857	17,612	17,581	17,508	17,599	17,285	17,194
Stone, clay, and glass products.....	280	307	301	280	287	286	1,284	1,302	1,287	1,292	1,239	1,208
Primary metals.....	3,278	3,336	3,303	3,355	3,354	3,146	2,709	2,818	2,854	2,737	2,807	2,714
Machinery (electrical and nonelectrical).	11,028	10,985	10,847	10,985	10,881	10,136	7,077	6,942	6,905	6,986	6,826	6,738
Transportation equipment.....	12,815	12,786	12,537	12,837	12,673	11,153	1,195	1,204	1,237	1,233	1,192	1,436
All other durable goods industries.....	5,242	5,279	5,333	5,171	5,161	5,136	5,347	5,315	5,225	5,351	5,221	5,098
Nondurable goods industries, total.....	5,608	5,656	5,600	5,627	5,528	5,371	17,329	17,438	17,394	17,444	17,335	16,829
Chemicals and allied products.....	1,070	1,056	1,050	1,070	1,069	1,018	3,411	3,475	3,463	3,440	3,460	3,394
Petroleum and coal products.....	467	463	484	461	456	474	1,140	1,204	1,248	1,153	1,242	1,245
Rubber and plastics products, n.e.c.....	375	376	360	375	379	333	1,298	1,295	1,272	1,316	1,293	1,236
All other nondurable goods industries....	3,696	3,761	3,706	3,721	3,624	3,546	11,480	11,464	11,411	11,535	11,340	10,954

<sup>p</sup>Preliminary.<sup>r</sup>Revised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP  
(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio <sup>1</sup> (months' backlog)			
	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>P</sup>	Nov. 1972	Jan. 1972	Jan. 1973 <sup>P</sup>	Dec. 1972 <sup>P</sup>	Nov. 1972	Jan. 1972
All manufacturing industries, total.....	1.56	1.61	1.60	1.72	2.09	2.21	2.11	2.09
Durable goods industries, total.....	1.82	1.93	1.89	2.07	2.48	2.65	2.51	2.52
Stone, clay, and glass products.....	1.07	1.12	1.11	1.20	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.66	1.60	1.67	1.98	1.52	1.41	1.48	1.27
Fabricated metals.....	2.06	2.17	2.16	2.27	3.23	3.39	3.28	3.34
Machinery, except electrical.....	2.24	2.34	2.35	2.55	2.52	2.57	2.52	2.42
Electrical machinery.....	1.99	2.08	2.03	2.05	2.84	3.07	2.99	2.92
Transportation equipment.....	1.73	1.99	1.88	2.07	5.09	5.75	5.46	5.51
Instruments and related products.....	2.24	2.39	2.33	2.50	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.23	1.23	1.23	1.31	0.51	0.51	0.49	0.44
Food and kindred products.....	0.96	0.92	0.94	1.01	(X)	(X)	(X)	(X)
Tobacco products.....	4.50	4.68	4.35	4.29	(X)	(X)	(X)	(X)
Textile mill products.....	1.55	1.52	1.59	1.67	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.08	1.16	1.14	1.19	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.35	1.31	1.37	1.44	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.84	0.87	0.91	1.01	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.47	1.55	1.47	1.51	(X)	(X)	(X)	(X)

(NA) Not available.    P Preliminary.    R Revised.    (X) Not applicable.

<sup>1</sup>Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

## Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

### DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

### EXPLANATION OF TERMS

**Value of Shipments--**Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this



definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

**Inventories--**End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

**New Orders Received and Unfilled Orders--**Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.